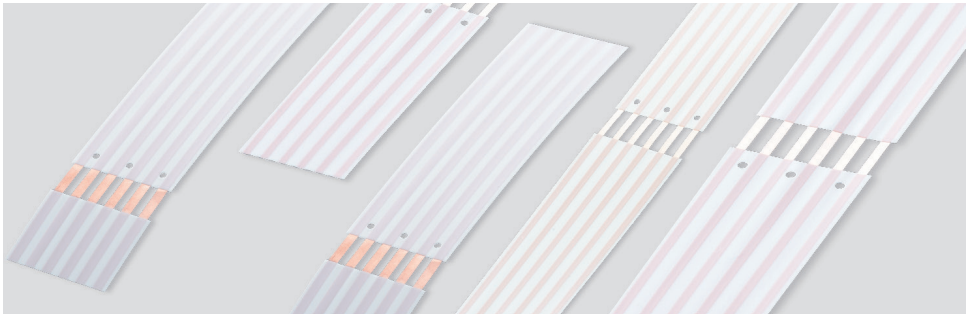
PANTA® FFC



PANTA® FFC Flexible Flat Fablesare produced by lamination process. Conductors made from precise flat rolled copper tracks with different height and width dimensions. Adhesive coated foils are laminated with the copper tracks to a high flexible compound by pressure and temperature. This PANTA® FFC has excellent mechanical and electrical properties

CHARACTERISTICS

- Insulation material: PET, PEN, PI, Polyaramid
- Conductor: Copper Cu-ETP (E-Cu) and Cu-PHC (SE-Cu58), Al
- Highest no of bending cycles
- Suitable for different connection technologies
  - Soldering
  - Welding (US-welding, resistance-welding, Laser-,…)
  - FFC crimping
  - IDC (Isolation displacement connector)
- Strain relive holes could be stamped inline during lamination process.
- Delivery on reel or as single FFC.
- Exposed copper contact area are realized by cut window technology (Windows are stamped into foil before lamination process. Therefore no adhesive on contact area and no additional cleaning process nessesary. Copper passivation layer preserved)
- Complex exposed geometries by laser processing.
- Best media resistance (Automotive compliant)
- Hydrolysis resistance
- Usable for signal and high current application (steering wheel heating,…)

APPLICATION AREAS

Automotive
- Clockspring applications(Airbag, Multifunction, Steering Wheel heating)
- Torque sensors on Steering Colums
- Battery-sensing
- Sensor-applications
- Sliding door and Roof module applications
- Flexible component carrier

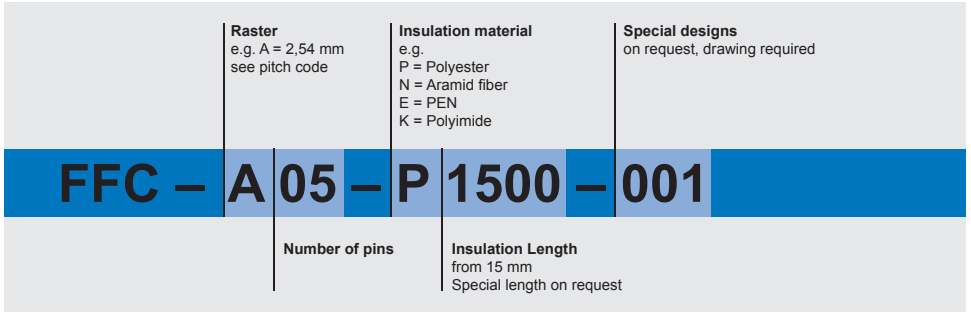
Industrial
- Sensor application
- Actuator application
- Flexible component carrier

Consumer:
- Flexible component carrier (LED, NTC,…)

Please do not hesitate to ask for our processing instructions for PANTA® FFC.

Abb.: Standard Clockspring FFC
Leiterbahn Cu-ETP (E-Cu)
50 µm – 200 µm

Abb.: Loop-back Clockspring Highflex,
Leiterbahn: Cu-PHC (SE-Cu58)
25 µm – 40 µm (Standard 35 µm);
Biegewechselfestigkeit > 10Mio Zyklen



TECHNICAL DATA

	Order code	E	G	B	D	F	A	S	Z	P	R	N	M	C	K	J
D	**Pitch** (mm)	1,00	1,25	1,27	2,00	2,50	2,54	2,70	3,18	3,50	3,81	3,96	5,00	5,08	7,00	7,50
	Number of pins	on request														
A	**Length** (mm)	selectable above 15 mm														
B	**Max. margin** (mm)	selectable up to 4														
B	**Min. margin** (mm)	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3	0,3
	Flat conductor thikness	35 µm - 200 µm														
G	**Flat conductor width**	> 0,6 mm														
	Conductor material	Cu-ETP (E-Cu); Cu-PHC (SE-Cu58)														
	Voltage rating (V_{DC})	200	200	200	200	300	300	300	300	300	300	300	300	300	300	300

	Insulation	Polyester	Nomex	PEN	Polyimide
	Insulation resistance (Ω) **(GRD-SIG-GRD)**	$>10^{10}$			
	Operation temperature (°C)	-40 ... +105	-40 ... +125	-40 ... +125	-40 ... +125

Customer specials on request.